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AGRICULTURAL MARKETING RESEARCH SINCE 1946

Talk by Frederick V. Waugh
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at the Meeting of the New England Research Council,
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Agricultural marketing research has accomplished a great deal since 1946. True, we have sometimes gathered miscellaneous facts and statistics. True, we need more analysis. True, we need more creative work to develop new ideas. Probably we also need more promotional work to sell these ideas to the public. These criticisms have been made by several able economists, and we should take them seriously. There is plenty of room for improvement. But still a great deal of good work has been done.

I would like to point out a few examples of accomplishments.

Descriptive Research

Since 1946, agricultural economists have gathered an enormous mass of descriptive material on marketing methods and practices, and on costs and margins. This material is being published in numerous reports by the colleges and the Government.

I agree with the critics (including economists and trade groups) who say that this material is worthless unless it is analyzed. But let's not forget that we have now a lot of material to analyze. And let's resolve to analyze it.

I believe also that these descriptive studies have had another important value. They have helped to educate many young research men. In 1946, the colleges and the Government both lacked trained researchers. This lack has not been fully overcome yet. One of our biggest problems is to get enough young, vigorous, imaginative men in this field. They need good college education. They also need some down-to-earth work in the field. I have no doubt, for example, that the recent regional study of egg marketing in the Northeast helped to train some young men.

Analysis

Facts and statistics are useful only if they are analyzed. We need not only to know what are the costs of marketing, but to understand the factors affecting costs.

Work simplification

Work simplification is a direct, practical approach to the efficiency of marketing operations. Researchers have paid more attention to the simplification of farm work than to the simplification of marketing operations. But considerable progress has been made in marketing, too. Examples are Brunk's study of the packing of Florida celery, several studies of fruit packing operations in California, and Harwell and Shaffer's study of check-out methods in supermarkets.

Marketing involves thousands of different operations, work elements, and "therbligs", to use a little technical jargon. Few of them have been studied scientifically. There is room here for plenty of productive research, and a good beginning has been made.

In this connection, it might be appropriate to note an advance in research techniques. The "ratio-delay method" is being used successfully as an economical means of estimating the time spent in various operations in certain kinds of processing plants. Sammet and Hassler have given an excellent example of the possibilities of this method.

Efficiency of plants.

In addition to simplifying particular jobs, the economist can help simplify the design and operation of a whole plant. Before 1946, Bressler had done good work on milk plants, and Paulson on cotton gins.

But since 1946 this kind of work has made real progress in several parts of the country. Under the leadership of Bressler and others, California has under way an important series of studies of fruit-packing plants. Howell has published an important report on cotton-yarn-manufacturing plants. Rowe has completed a study of cheese plants in Oregon.

These studies consider all the short-term and long-term efficiencies which might be obtained by better methods of procurement of supplies, by improved operation of plants, by modern machinery and equipment, by all possible economies of scale, and by the development of potential markets.

Efficiency of a wholesale market.

Mr. Crow, of PMA, is continuing to study wholesale markets for perishable foods, and to promote modernized market facilities. Among the markets studied in cooperation with the colleges have been Hartford and Boston. Real progress is being made in this field. Here we have not stopped with fact-finding, nor even with analysis and recommendations. A great deal of promotional work has been done with the trade and with local officials to get some of the improvements made.

Market structure

Many of the descriptive studies have provided materials needed to study market structure. A marketing system, like a house, is built of many parts, each designed to fit other parts. We need to know about each part, and we need to know about the relations between parts.

It is possible that the "inter-industry" techniques developed by Leontief and by mathematicians in the BLS, the Air Force, the Bureau of the Budget, and the Cowles Commission may be found very useful in future studies of market structure. One aspect which is worthy of note is that called "linear programming." This technique might be used to discover what adjustments would be required in market structure in order to do a specified job at minimum cost.

Transportation

In my opinion, we need much more research in the transportation of farm products. But some real progress is being made.

The New England studies of milk collection and distribution are examples of good work in this field. Another example is a report on transportation and handling costs in San Francisco and Oakland, resulting from an RMA contract with the Stanford Research Institute. Also we have just made a contract with the Stanford Research Institute for a general study of the transportation requirements for Western agriculture, including the facilities needed to market the products grown in newly irrigated areas. Mr. Church and others in BAE have under way several studies of the effects of freight rate differentials upon the geographical distribution of farm products.

But the economists still neglect the important field of rate regulation, leaving it to lawyers and to "transportation experts." Railroad freight rates have increased 13 times since the beginning of 1946. Obviously, some increases were essential. But what about the general level of agricultural freight rates? What about agricultural exemptions? What about transit privileges? What about competition between railroads, trucks, barges, and airplanes? These are economic matters of great importance to farmers. Let's not leave it to the lawyers alone. Let's do some good economic research in this field. I can assure you that it would be welcome. Our transportation research advisory committee has requested more work than we can possibly do with our present staff. Farm organizations are also urging more work in this field.

Some interesting theoretical work in transportation has been done by Baumol, Koopmans, and others. With sharpened theoretical tools, and perhaps with the new electronic computers, it may be possible in the future to solve some very difficult problems involving the economics of location and geographical distribution. Hammerberg's work on milk distribution in Connecticut was in this general area. With new methods of research, much more research of this kind may become possible.

Improvements in Marketing

Neither facts alone, nor facts and analysis, are enough. The basic purpose of our work is to improve marketing. Our research should help farmers and dealers to make improvements, and it should help us to develop sounder public policies.

Monopoly and imperfect competition.

Some good work is being done on the nature and extent of competition in agricultural marketing. Some of the descriptive studies provide background material. The best example of an RMA study is Nicholls' work on tobacco.

Nourse's, "The 1950's Come First", and Galbraith's, "Countervailing Power" should also be mentioned here. Although neither book is limited to agricultural marketing, both help us understand the problems associated with the concentration of economic power, and both support policies for dealing with it.

By now probably all agricultural economists realize that competition is neither pure nor perfect in agricultural markets. Not only are there big packers, chain stores, and railroads. There are interstate trade barriers, marketing agreements, and resale price maintenance laws (sometimes called the more pleasant name "fair trade laws"). Some research has been done on these topics. In my opinion we need a great deal more.

Storage.

Several economists have recently studied storage policy to determine reserve requirements in relation to the variability in yields and in demand. Shepherd and Benedict have published studies. Wells and Fox made a study which recently was published by the Senate Agricultural Committee. Chicago University is making a study under an RMA contract.

These studies are concerned mainly with the problem of maintaining adequate and fairly stable supplies of grain and cotton. But they also have important implications to our policies of price support, production, and foreign trade.

Futures trading.

Rowe is making a study of futures trading under an RMA contract with Brookings. We have hopes that this study will throw a good deal of light on a subject which has been obscure.

There are many interesting theories about futures trading. And many statistics have been published. We know plenty about the mechanics of hedging and speculation, but we need to know a lot more about how the market works, and about the economic effects of various trading practices.

Consumer preferences and market development.

Among the early RMA activities were several studies of consumer preferences for foods and textile products. These were started when many economists were anticipating surpluses. It was hoped that these studies would help find new markets, or enlarge old markets. Since Korea, there has been less demand for these studies. But it should not be long neglected.

In addition to market preference studies as such, a good deal of work has been done on market development in a broader sense. An example is a study by Bayton and Robert on apple juice. A new type of apple juice was developed, produced in a pilot plant, market acceptance tested, and finally the process was taken over by a business concern. Hawaii has studied potential mainland markets for Hawaiian flowers, and is following it up with studies of methods of developing that market. The floricultural

industry in this country is now interested in possible studies of potential markets for their products.

Pricing and Demand

We may be almost on the threshold of important new developments in research dealing with prices and demand.

Several studies are under way to measure in detail the influence of incomes, prices, and family composition upon the purchases of individual families. One example is the study now under way in the USDA of factors affecting family purchases of fresh and processed citrus products.

From the beginning, there have been two schools of thought about demand research. Following the lead of Cournot and Marshall, most economist-statisticians to date have tried to estimate the demand for a single commodity or service by "holding other things constant." Moore, Ezekiel, and Schultz were among the pioneers in this field. But Walras and Pareto developed the general theory of demand structure, in which the demand for any commodity is a function of the prices of all commodities. For several years, some economists and mathematicians have suggested that, instead of trying to determine one demand equation in isolation, we should set up a "model" of the economy and determine how it works. Frisch, Girshick, and several persons in the Cowles Commission have done pioneering work along these lines.

Fox, Foote, and others in the BAE are interested in this approach and are beginning to come up with some promising results. Also, it is quite possible that the BLS inter-industry studies will be found quite useful in measuring the structure of demand. So far they have not been used to study prices, but they could be.

Conclusion

We have made real progress since 1946. Especially, we have gathered, and partially analyzed, a mass of useful material. We now need greater emphasis upon analysis and upon inventive research to find practical ways of bringing about improvements in marketing.

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